Amendments to the Claims

In The Claims

Please cancel Claims 13 through 20 and 31 without prejudice.

Please add Claims 32 through 46 as follows:

1-20. (cancelled)

21-30. (withdrawn)

31. (cancelled)

32. (new) An optical arrangement in a confocal microscope, the arrangement comprising:

means to spectrally fan out an incoming light beam in a detection beam path of said confocal microscope;

means to split said spectrally fanned out light beam out of a dispersion plane for said spectrally fanned out light beam;

means for detecting a spectral range of said split, spectrally fanned out light beam; and,

a pinhole occluder, located at a focus for said detection beam path, having a passageway with a polygonal configuration.

33. (new) The optical arrangement as recited in Claim 32 wherein said spectral fanning means further comprises a prism.

34. (new) The optical arrangement as recited in Claim 32 wherein said splitting means further comprises a plurality of locations at which said spectrally fanned out light beam strikes said splitting means; and,

wherein said splitting means reflects all of said spectrally fanned out light beam at a first location selected from said plurality of locations and passes all of said spectrally fanned out light beam at a second location selected from said plurality of locations.

35. (new) The optical arrangement as recited in Claim 34 wherein said splitting means further comprises a first detection gap element having a first gap; and,
wherein said first gap is operatively arranged to pass a first range of said spectrally fanned out light.

36. (new) The optical arrangement as recited in Claim 35 wherein said detecting means further comprises a first detector operatively arranged to detect at least a portion of said first range passing through said first gap.

37. (new) The optical arrangement as recited in Claim 35 wherein said first detection gap element further comprises a reflective surface operatively arranged to reflect a second range of said spectrally fanned out light beam; and,
wherein said splitting means further comprises a second detection gap element having a second gap operatively arranged to pass said reflected second range.

38. (new) The optical arrangement as recited in Claim 37 wherein said detecting means further comprises a second detector operatively arranged to detect at least a portion of said second range passing through said second gap.

39. (new) The optical arrangement as recited in Claim 32 wherein said passageway is symmetrically configured.

40. (new) The optical arrangement as recited in Claim 39 wherein said passageway has a triangular configuration.

41. (new) The optical arrangement as recited in Claim 39 wherein said passageway has a four-corner configuration.

42. (new) The optical arrangement as recited in Claim 39 wherein said passageway has a rectangular configuration.

43. (new) The optical arrangement as recited in Claim 32 wherein said passageway has a triangular configuration.

44. (new) The optical arrangement as recited in Claim 32 wherein said passageway has a four-corner configuration.

45. (new) The optical arrangement as recited in Claim 32 wherein said passageway has a rectangular configuration.

46. (new) An optical arrangement in a confocal microscope, the arrangement comprising:

means to spectrally fan out an incoming light beam in a detection beam path of said confocal microscope;

means to split said spectrally fanned out light beam out of a dispersion plane for said spectrally fanned out light beam;

at least one detector operatively arranged to detect a range of said spectrally fanned out beam on a detection line in said dispersion plane, said detection line defined by diffraction minima of said fanned out beam on said dispersion plane; and,

a pinhole occluder, located at a focus for said detection beam path, having a passageway with a polygonal configuration.